

PATENT SPECIFICATION



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COMPLETE SPECIFICATION.

Improvements in Dust Suction Apparatus.

We, INVENTIA PATENT-VERWERTUNGS-GESELLSCHAFT, of Herrenacker 10, Schaffhausen, Switzerland, a body corporate organised under the laws of Switzerland, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 This invention relates to portable dust suction apparatus of the enclosed dust bag type.

The object of the invention is to provide an apparatus of the above type with a handle which is rigidly secured to the casing in a simple but inexpensive manner, and arranged so that the operator on holding the same during manipulation of the apparatus may be fully protected against accidental contact with current carrying parts of the apparatus.

According to the present invention the apparatus comprises a casing containing a motor driven fan and a dust bag or like member through which the air stream passes and provided with a handle by which the apparatus may be readily lifted during operation, the handle being formed at its end to be connected to the casing with a conical portion fitting in a conical bore of the casing and secured therein by a longitudinally acting screw arranged eccentrically of the bore.

In order to render the operator completely safe from contact with current carrying parts of the apparatus when holding the handle, the latter is provided with a one-piece insulating cover adapted to cover the handle of the apparatus and further so constructed as to conceal the securing means for the handle.

The invention is hereinafter more particularly described with reference to the accompanying drawings, in which:—

Fig. 1 is a longitudinal section of the apparatus, of the invention.

Fig. 2 is a side elevation of the apparatus in use.

Figs. 3 and 3a are sectional details of the handle securing means and the cover.

Referring to Fig. 1 the apparatus comprises a casing 1 closed at the front end by a screwed cover 2 formed with a suc-

tion opening 3 for attaching a suction pipe 4 (Fig. 2) and containing a dust bag 5, and a fan 6 driven by an electric motor 7. At the exhaust or blowing end of the casing is mounted a handle 8 and attached to the casing in any desired manner is further a sling 9 which may be used to support the body of the apparatus in known manner.

The windings of the motor are connected to a current coupling device 10 to which is secured in operation a further coupling device 11 secured to a current carrying cable 12. Located on the handle 8 is a switch member 13 for controlling the supply of current to the motor 7.

As shown more particularly in Fig. 3, the handle 8 is provided with a conical portion 14 which is received in a conical bore 15 of the casing 1. The handle is further formed with a bore adapted to receive a screw 16 which is arranged parallel to the axis of the conical bore 15, but eccentrically thereof. The screw 16 screws into a lug 17 formed on the casing 1. On screwing the screw 16 into the lug 17 the conical surfaces are drawn together and pressed rigidly one within the other so that an entirely secure arrangement is provided in a simple and inexpensive manner.

The handle 8 is covered with an insulating cover 18 which is formed in one piece. This cover 18 is preferably formed of soft or hard rubber or other suitable insulating material. On the inside of the cover are projections or ribs 19 which engage in recesses 20 formed in the handle 8. On drawing the cover over the handle these projections 19 yield but assume their normal form as soon as they lie opposite the recesses 20 so that a secure fastening of the cover 18 on the handle 8 is obtained. These projections together with the corresponding recesses 20 are preferably located at the rear end of the handle so that they need slide over a short portion only of the handle.

In order to fasten the cover 18 more securely on the handle it may be held by a sunk screw 21 which is arranged in a recess 22 in the cover 18. For this purpose one rear edge 23 of the handle is

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formed flat and provided with a threaded hole. The screw 21 can, if desired, be protected by a rubber plug 24.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. Dust suction apparatus comprising
10 a casing containing a motor driven fan and a dust bag or like member through which the suction air stream passes and provided with a handle by which the apparatus may be readily lifted during
15 operation, the handle being formed at its end to be connected to the casing with a conical portion fitting in a conical bore of the casing and secured therein by a longitudinally acting screw arranged
20 eccentrically of the bore.

2. Dust suction apparatus comprising a casing containing a motor driven fan and a dust bag or like member through which the suction air passes, a handle for carrying
25 the apparatus during operation

secured to the casing by fastening means and a one-piece insulating cover adapted to cover the handle of the apparatus and to conceal the fastening means.

3. Dust suction apparatus according to Claim 2 in which the cover is provided on the inside with projections, ribs or the like, which engage in corresponding recesses in the handle itself. 30

4. Dust suction apparatus according to Claim 3 in which the projections, ribs, or the like are located at the rear end of the handle. 35

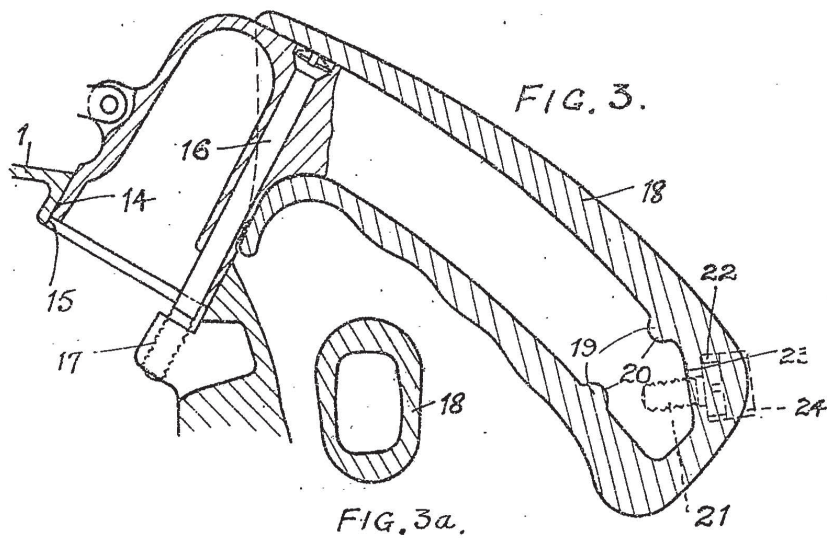
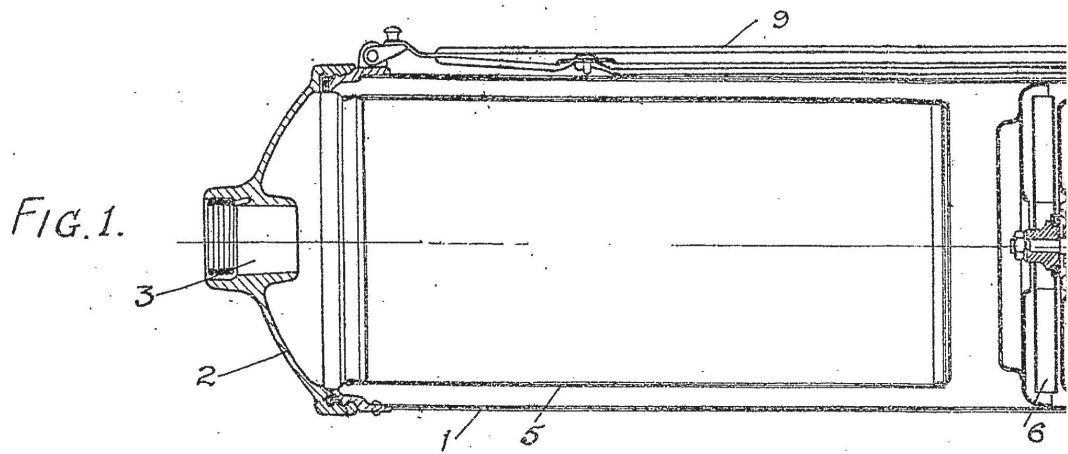
5. Dust suction apparatus according to Claim 2 in which the cover is secured by a sunk screw adapted to be insulated by a rubber plug. 40

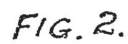
6. Handle parts for dust suction apparatus, constructed, arranged, and operating, substantially as described with reference to the accompanying drawings. 45

Dated the 5th day of January, 1928.

FRANK WATSON,
155, Regent Street, London, W. 1,
Agent for the Applicants.

[This Drawing is a reproduction of the Original on a reduced scale.]





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